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Alien spotting : Damien Hirst's Beagle 2 Mars Lander calibration target and the exploitation of outer space

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Imagining Outer Space

European Astroculture in the Twentieth Century

Edited by

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*Emmy Noether Research Group Director
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Alien Spotting: Damien Hirst's Beagle 2 Mars Lander Calibration Target and the Exploitation of Outer Space

Tristan Weddigen

Ah the old questions, the old answers, there's nothing like them!

Damien Hirst, quoting Samuel Beckett's *Endgame*¹

During the summer recess of 1996, the August issue of *Science* magazine spectacularly revealed the apparent microscopic evidence of fossilized bacteria on the Mars meteorite ALH84001, discovered in Antarctica in 1984 (Figure 16.1).² Bill Clinton's public announcement that the meteorite 'speaks of the possibility of life' and that, although 'it promises answers to some of our oldest questions, it poses still others even more fundamental,' fuelled American and worldwide public discussion on extraterrestrial life and future Mars missions – and hence probably alleviated NASA from budgetary restraints.³ Clinton's declaration that the first Mars mission was 'scheduled to land on Mars on 4 July 1997 – Independence Day' was most likely alluding to Roland Emmerich's namesake science-fiction movie. The president had enjoyed it in a preview screening at the White House – which alien invaders destroy in the movie. The film had been released with great success on 2 July, the day the plot of the movie begins, after it had been publicized with taglines such as 'We've always believed we weren't alone. On July 4, we'll wish we were,' citing and renewing Orson Welles's 1938 mock radio broadcasting of a Martian invasion taken from H. G. Wells's *The War of the Worlds*.⁴ The conflation of science, fiction, politics, economy, pop culture and globalized mass media makes the rediscovery of Mars in the 1990s a postmodern event.

One year later, in competition with NASA's successful and publicly acclaimed Mars Pathfinder and the succeeding Mars Odyssey and Mars Exploration Rover programs, the European Space Agency (ESA) started its own Mars Express mission to search for 'signatures of life' on the Red Planet.⁵ In June 2003, an orbiter and a lander were launched. The lander, called Beagle 2 after Charles Darwin's ship as a tribute to evolutionary theory, had been developed since 1997 by a British public-private consortium under the direction of the principal investigator Colin Pillinger (1943–) of the Open University (Figure 16.2). Its explicit purpose was to find answers to the question whether there is or has been life on Mars. Beagle 2 was due to land on Christmas Eve 2003, but has not been traceable since its separation from the orbiter and has therefore been declared missing.⁶



Figure 16.1 High-resolution scanning electron microscope image of the meteorite ALH84001, published most frequently in relation to the possibility of life on Mars, 1996.

Source: Courtesy of NASA.

I Blurring boundaries between science, economy, and art

A landing and identification sign that never resounded back to earth had been written into the source code of the lander's software and consisted of a nine-note refrain composed by the celebrated British neo-pop band Blur. The jingle was based on the Fibonacci sequence and was reminiscent of the tune of the popular BBC science-fiction television series of the 1960s, *Doctor Who*.⁷ As Pillinger states, because he faced great difficulties in financing the project, the cooperation between the Beagle 2 project and Blur was a marketing strategy to attract the attention of mass media and thus possible public and private sponsorship.⁸ He has labeled himself a 'professor of PR' and a 'pop entrepreneur,' creating a 'publicity machine' and even a 'bit of art.'⁹

Blur's drummer, the computer scientist Dave Rowntree, who also collaborated in the digital animation video of Beagle 2, ironically commented on the call sign: 'How do you know what sounds like a friendly, warm greeting and what sounds like a declaration [of war]? But I think Martian bacteria love Britpop.' And: 'We're not expecting to find anything more than bacterial life on Mars, so I imagine they'll like heavy metal,' alluding to the lander's hardware instead of software.¹⁰ Rowntree's statement makes clear that the tune, as a mere programming code imperceptible to both humans and aliens – unlike the Voyager 1 and 2 humanist interstellar messages launched in 1977 – had no serious intention of conveying a universal peace message or to establish a basis for extraterrestrial



Figure 16.2 Colin Pillinger and the Beagle 2 model, March 2001.

Source: Courtesy of Beagle 2, <http://www.beagle2.com/resources/down3b.htm> (accessed 1 August 2011).

communication.¹¹ Even before the launch of Mars Express, scientific evidence did not raise expectations higher than finding bacteria or water, which did not capture people's imagination. Historically, aliens have been the mirror image of humanity's fears and hopes by surpassing us in intelligence or wickedness. In 2003, Martians were imagined as late consumers of mainstream Britpop.¹²

Blur's retro-futurist reference to their childhood's mass media culture such as *Doctor Who* and their own imitation and commercial appropriation of British pop music of the 1960s and 1970s exposes a sincere lack of metaphysical beliefs beyond a capitalist consumerism which recycles and re-exploits historical fetishes and icons. Much like the pop band, Pillinger declared himself inspired by earlier British science-fiction culture of the 1950s such as *Dan Dare*, *The Eagle* and *Journey into Space*. The Mars lander itself, before unfolding, appears to be a retro-futuristic citation, for it clearly resembles the type of flying saucer as it was canonized in 1947, playfully transforming the Red Planet into the inhabited Mars we wished it to be.¹³ Blur's Mars ringtone was most likely intended to repeat the global media success of the frightening and unforgettable Sputnik beep of 4 October 1957. Instead of the victory of Soviet imperialism, it would announce the cosmic emanation of post-industrial capitalism and global entertainment, the final victory of pop over ideology. Similarly, in 1997, one year after the supposed discovery of fossilized Martian bacteria, the artist Joan Fontcuberta (1955–) had produced the space-historical and post-soviet hoax *Sputnik*, which included a fake meteorite

with a microscopic alien message to humanity as an ironic comment on the new retro-futurist US Space Race publicity.¹⁴ Blur's pseudo-acoustic identification signal was clearly addressed to humans alone.

The planned landing date of Beagle 2, Christmas Eve – a day even more sensational for the discovery of extraterrestrial life than Independence Day – was probably calculated to back the project's publicity, too. In a post-Cold War and seemingly post-ideological world, the exploration of outer space is not only a political power game and a scientific enterprise but also a matter of economic exploitation.¹⁵ The abuse of Christ's birthday goes beyond commodification of outer space and can be interpreted as a postmodern and ironic reference to the modernist hopes for the epiphany of a higher extraterrestrial intelligence which would act as a material *ersatz* after the proclaimed death of God. The involvement of a pop group with a space agency is not only a business deal, but also a symptom of contemporary culture, which increasingly merges science, economy and art. In contrast, the sample of Ferrari's *rosso corsa* paint attached by ESA to the Mars Express Orbiter demonstrates how uninspiring and meaningless public-private public relations can be (Plate 10).¹⁶

II Spotting aliens

In 1999, after appointing Blur, Pillinger saw Damien Hirst (1965–) on television, one of the most important exponents and curatorial promoters of the successful artists dubbed 'Young British Artists.'¹⁷ They corresponded to Britpop in the visual arts of the 1990s and indulged in a close partnership with the art market, and in particular with the influential collector and advertisement manager Charles Saatchi (1943–). The *enfant terrible* Hirst, one of the most successful and wealthiest artists alive, is not only notorious for his dissected sharks, cows and sheep immersed in formaldehyde, but also for his provocatively harmless and meaningless *Spot Paintings* that he has painted since 1990, and that caught Pillinger's attention. Alex James of Blur then contacted Hirst, his friend from their time together at London Goldsmiths College, who had directed Blur's neo-pop music video clip *Country House* in 1995.¹⁸

Pillinger made a similar arrangement with Hirst, thus generating a great amount of publicity for Beagle 2. In order to spare the spacecraft's mass and power budget, Pillinger asked Hirst not to provide for a dissected animal – 'cows are too heavy' – but to design a calibration target for the several onboard cameras and instruments (Plate 11).¹⁹ The small, space-qualified aluminum plate was to resemble Hirst's *Spot Paintings* displaying a series of different benchmarking dots. For example, the Moessbauer spectrometer was meant to analyze iron in Martian soil and needed to be checked against standard samples of different types of iron *in situ*. Accordingly, Pillinger defined nine different hues of the synthetic Mars yellow pigment, named *crocus Martis* in early modern alchemy, varying from yellow to black according to the grade of its oxidation and supposed to be present in Martian soil. A white spot was included for contrasting with the black one, and two additional, technically non-functional colors were added, green and blue, symbolizing planet Earth, thus contradicting Hirst's concept of non-symbolic *Spot Paintings*. Moreover, Pillinger

understood the synthetic iron oxides first used in the 1830s as another tribute to Darwin's *Beagle*.²⁰ Beagle 2 consisted of a disk-shaped vessel containing a swivel arm pointing a number of cameras and instruments first on the calibration target, before it would analyze the Martian soil.

As little of the arrangement of the spots and the inclusion of two colors seem to have been left to the artist's decision, the impression is confirmed that Hirst's art was utilized as a widely recognizable art logo. Again, here, art was a surplus gadget attached to a scientific machine, and the deal between Pillinger and Hirst was based on the mutual benefit of greater notoriety in case life was discovered on Mars on Christmas Eve. According to Pillinger, the Beagle 2 project was clearly not an art performance, but a scientific project aiming at a higher inquiry: 'This collaboration is not about displaying art in space but about finding out if there is life on Mars.'²¹

Still, the calibration target was explicitly staged as a piece of art, including a two-day exhibit at the White Cube gallery in London before being mounted onto the spacecraft. The aluminum target for Mars remains in the possession of Hirst, himself the most important owner of his own works before the spectacular 2008 sell-out at Sotheby's. The calibration target holds the specific status of a so-called multiple, since two spares were produced for Beagle 2, and three are currently owned by Hirst. Although the calibration target is said to be a purely functional work of art as useful as meaningless, its spots inevitably confer meaning: '[B]eing metaphorical is ridiculous, but it's unavoidable.'²²

III Visual candy

Hirst is not a militant atheist, but a pragmatic nihilist who, under the present circumstances, finds it hard to believe in the existence of any supernatural being or religion: 'Where's God? God's fucked off.'²³ Hirst's pop existentialism is centered on the ideas of life and death. For him, 'art's about life' since there is nothing else to talk about; because death is an 'unacceptable idea,' contradicting our innate desire for eternal life, and can be made bearable only by distraction and amusement, which is art.²⁴ On the one hand, Hirst cannot believe in art, as art is ultimately powerless to stop death. But on the other hand, foolishly, he feels compelled to make art and prefers theatrical failure to blind belief: 'I love the way that art doesn't really affect the world. Science affects the world much more directly.' With a gesture of self-denigration, Hirst's *oeuvre* persistently flirts with science, the new 'universal panacea' outstripping religion. He seems conscious that some kind of scientific art would fail too, but perhaps more evidently, thus more effectively revealing art's tragic dilemma: 'It's, like, decorative shit in need of a function; looking for a higher meaning for itself.'²⁵

At least, the Beagle 2 calibration target had the advantage of being declared a scientifically 'useful' and 'absolutely essential' work of art containing 'a hell of a lot of science,' according to Pillinger.²⁶ Unquestionably, the plate would have worked perfectly without Hirst's aesthetic arrangement, and art's usefulness was certainly financial and personal. Hirst likes both myths: the modernist one of

the 'artist as a scientist' and Andy Warhol's idea of the 'painter as a machine,' because this would free the artist from producing any consistent meaning. The serial and anonymous production of the *Spot Paintings* by assistants applying simple household gloss on canvas was itself, much like Warhol's *Factory*, somehow industrial and explicitly denying traditional ideas of authorship.²⁷ In this sense, the calibration target, made by scientists and for robot cameras, comes close to a nihilist technological utopia of art made by machines for machines which do not despair at the human condition.

The scientific aspect pervades Hirst's work, and it measures the power of art with scientific solutions to human problems, especially medicine, leading to question both art as pseudo-science and science as a form of art. His *Spot Paintings* follow a simple and potentially endless pattern, and the colors are varied so as to make every painting seemingly unique. In the *Spot Paintings*, the uniqueness, individuality or 'loneliness' of the single colors are harmonized with the uniformity of the shape and pattern of the dots. Hirst claims to have discovered that such grids of colored spots automatically have a harmonious and cheering effect on the viewers: 'No matter how I feel as an artist or a painter, the paintings end up looking happy.' They almost mechanically 'don't go wrong' and help in ignoring the all-pervading existential angst and horror of human existence.²⁸

In order to overcome the romantic, emotional Abstract Expressionism he had learned at the art academy, Hirst felt freed from the need to express his own pointless emotions by developing an expressive system which automatically produces happiness in the beholder's mind.²⁹ Hirst's strategy is heavily indebted to pop art but exacerbates it to pure commodity. For Hirst, the colorism of the *Spot Paintings* conveys an immediate and simple sense of eternal beauty: 'The thing is they're fucking gorgeous; they're fucking delicious; they don't keep still, they'll live for ever. They're absolutely fantastic. They're color. They're as good as flowers, and they're just fucking paintings.' They produce 'the joy of color' without meaning, total superficiality and meaninglessness, which nevertheless has a direct impact: 'The *Spot Paintings* are an unfailing formula for brightening up people's fucking lives.' According to Hirst, they work like 'sweets (Smarties) or drugs,' but in a 'childish' way, like 'visual candy': 'They are what they are, perfectly dumb paintings which feel absolutely right.' Again, the astonishing economic success of the hundreds of *Spot Paintings* produced by his workshop seems to have proven him correct.³⁰

Hirst's discovery that the *Spot Paintings* have an immediate uplifting effect on the beholder strengthens his belief that 'art is like medicine – it can heal.' Consequently, in the series of *Spot Paintings*, Hirst searches for 'a scientific approach to painting in a similar way to the drug companies' scientific approach to life.' He therefore called them *The Pharmaceutical Paintings* and named the single paintings in alphabetical order, according to the product names he had found in the catalogue of a biochemical drug company: *Alpha Tocopherol*, *Aminoantipyrine*, *Aminodoxythymidine*, and the like (Figure 16.3). This led Hirst also to display medicines, multi-colored pills and boxes in showcases and cabinets, which is conceptually and visually close to the *Spot Paintings*.³¹ Consequently, Hirst's

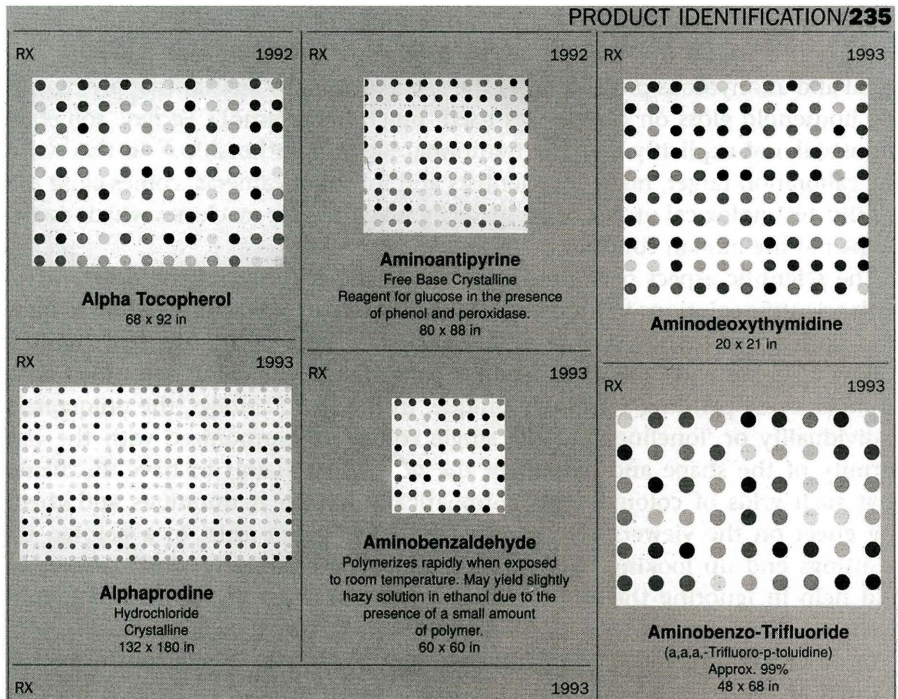


Figure 16.3 Damien Hirst, *Spot Paintings*, detail of chart in the artist's *oeuvre* catalogue.

Source: Damien Hirst, *I Want to Spend the Rest of My Life Everywhere, with Everyone, One to One, Always, Forever, Now*. London: Booth-Clibborn, 1997, 235.

calibration target might still be intended as a simple, chemical message of beauty, happiness and peace to aliens, as ironic and retro-styled as Blur's ringtone based on a never-ending mathematical sequence.

The regular distribution of colored dots on Hirst's paintings refers to the modernist paradigm of the grid as a visually self-referential model of the world and functions like an innocent-eye test for the camera, the humans and the Martians alike.³² Interestingly enough, Hirst compared the grid structure of the *Spot Paintings* with the Hasselblad cross-hairs on the Apollo moon photographs: 'If you look at a landscape or one of those photographs they have of the moon, it is a completely unknowable landscape but then NASA always put a grid over it and it gives it a kind of confidence. If you put a grid over something unknowable it is as close as you get to integrating or understanding the image and having power over it. It is the failure of that which I like.'³³ Hirst might be intuitively right: the photographic grids have a scientific look which surpasses their own functionality. As the dot structure of the target is meant to calibrate the Beagle 2 cameras and thereby to reassure humans in their scientific exploration of outer space, art is a means of terraforming Mars and more generally of humanizing the inhumanity of life – an endeavor ultimately condemned to fail. Thus, painting and music seem to be the test cards which reveal what is human, alien or lifeless. 'Where do we come from? What are we? Where are we going?' – these are the fundamental questions both

science and art shall ask themselves, Hirst stated by alluding to the title of Paul Gauguin's famous painting, and space exploration offered him a liminal situation for human self-discovery.³⁴

IV Art for Martians

Hirst's calibration target stands in a historical tradition of space art, reaching from Kazimir Malevich's (1879–1935) orbital architectures, called *Planites*, to the 1969 Apollo 12 *Moon Museum* and Paul van Hoeydonck's 1971 Apollo 15 *Fallen Astronaut* (see Figures 17.6 and 17.7).³⁵ As much as Pillinger and Blur, Hirst himself owes his ideas about outer space to popular culture and acknowledges his childhood fascination for space travel, but sees in naïve curiosity a positive momentum of science and art. Accordingly, his 1997 *oeuvre* catalogue includes the reproduction of a fake popular astrophysics text book, *Science for All*, illustrating the Great Orion Nebula and the birth of the moon, thus alluding to collective retrograde notions of science as modern myths.³⁶ But, not being able to ignore a historical series of failed attempts of artists' conquests of outer space – including heroic, utopian, kitsch, ironic and silly strategies – Hirst could hardly avoid making a new statement and comment on humanity's and art's *raison d'être* with his calibration target, the more so by contributing with neo-modern 'high art lite' or 'geometrical decadence,' quoting modernism as an academism of the past. So, ironically, the calibration target becomes a serious message sent from Spaceship Earth, this godforsaken 'Ship of Fools.'³⁷

Although Hirst's *Spot Paintings* stand for consumerism, and the calibration target even alludes to the alchemical philosopher's stone whereby art turns matter into money, Pillinger explicitly did not want sponsors displaying their logos on Mars, which might represent a last artificial and inconsistent threshold of sacredness and taste. Still, in a more subtle way, he opted for Blur and Hirst who are widely known brands. Hirst himself sometimes declares that his *Spot Paintings* are 'like a logo' and that the branding of art is unavoidable.³⁸ Hirst is aware that art cannot evade capitalism and the art market, not even in outer space. Although 'art is about life and the art world is about money,' contemporary life is permeated by commoditization: thus art cannot avoid money, which obfuscates beauty's power to relieve the mind. But art becomes rebellious when it manages to stay art under a regime of commoditization, and when its speculative market value – as in the case of Hirst's – contradicts and transcends its own functionalization.³⁹

Concerning the calibration target as a work of art, Hirst has uttered two known assertions: 'I'm sure there'll be a great demand for my work out there – they'll love me!' And: 'If they've got eyes, they'll love it.'⁴⁰ As in the case of Blur, such pop star statements are to be taken seriously as part of the work of art's context. Firstly, aliens need human eyes to receive the joy of color and they are even supposed to feel love for art, which they probably do not. This is tantamount to admitting that there is no extraterrestrial life of interest if it is not human-like and thus also attracted to beauty and art. Secondly, Hirst wishes his works to be liked and especially bought by aliens. Therefore, Hirst sees the need to export art with its own existential context, the capitalist art market, which is essential to his own

work. In the middle of nothingness, on Mars, it is not the context which makes the work of art as such, but rather the other way round: it is the work of art which exports its own context and meaning.⁴¹ Thus, with the calibration target, Hirst states that the commoditization of art is vital to his work, to the Mars Express mission itself, and also to contemporary society as a whole. Capitalism makes humanity, *homo animal oeconomicus*. Thus, in conquering another planet, humans need capitalism as much as oxygen, calibrate the unknown according to it, and spread it like a virus.

Space art is not a means of extraterrestrial, but of human communication and self-assurance, a 'message from earthlings to Mars,' sent back to us by robot cameras.⁴² The probe can be read as a scale model of today's society, suggesting that art – although intrinsically nonsensical, powerless and at best uplifting – is a functional decoration, point of reference, symbol, and motor of a technological and capitalist system (Plate 12). Essentially an active part of this system, self-conscious space art can effectively reveal the transformation of space exploration into space exploitation and, finally, that human commoditization is expanding well beyond the Blue Planet by means of science and art.

Notes

1. Damien Hirst, *I Want to Spend the Rest of My Life Everywhere, with Everyone, One to One, Always, Forever, Now*, London: Booth-Clibborn, 1997, 6; Samuel Becket, *Endspiel: Fin de partie. Endgame*, Frankfurt am Main: Suhrkamp, 1974; *Fin de partie*, Paris: Editions de Minuit, 1957, 56. All internet sources were accessed on 1 August 2011.
2. David S. McKay, 'Search for Past Life on Mars. Possible Relic Biogenic Activity in Martian Meteorite ALH84001,' *Science* 273.5277 (16 August 1996), 924–30. See David R. Williams, *Evidence of Ancient Martian Life in Meteorite ALH84001?*, 9 January 2005, NASA Goddard Space Flight Center, <http://nssdc.gsfc.nasa.gov/planetary/marslife.html>; NASA/JPL Mars Meteorites, <http://www2.jpl.nasa.gov/snc/index.html>.
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4. See audio file of Welles's 1938 broadcast, *Internet Archive*, <http://www.archive.org>.
5. ESA Mars Express, http://www.esa.int/SPECIALS/Mars_Express/index.html; ALH84001 *ibid.*, .../Mars_Express/SEMSL75V9ED_0.html.
6. Colin Pillinger, *Beagle: From Darwin's Epic Voyage to the British Mission to Mars*, London: Faber & Faber, 2003. See Beagle 2 website, <http://www.beagle2.com/index.htm>; *The Pleasure Principle: An Interview With Colin Pillinger*, 18 December 2003, ESA website, http://www.esa.int/esaSC/SEMLHT274OD_people_0_iv.html; Andrew Wilson, ed., *Mars Express: The Scientific Payload*, Noordwijk: ESA, 2004, <http://www.esa.int/esapub/sp/sp1240/sp1240web.pdf>. For the probable landing site, see http://www.esa.int/SPECIALS/Mars_Express/SEMAPB8A9HE_0.html.
7. *Doctor Who* started broadcasting in 1963. See audio file, *Space Place*, <http://www.orbit.zkm.de/?q=node/188>; Beagle 2 website, <http://www.beagle2.com/resources/audio-album.htm>; BBC's *Doctor Who*, <http://www.bbc.co.uk/doctorwho>; Blur's song 'Beagle 2' on the 1999 single *No Distance Left to Run*.
8. Pillinger, September 2003, ESA, http://www.esa.int/esaCP/ESANJOPV16D_Austria_0.html; David Whitehouse, 'Beagle Mars Probe Awaits Sponsors,' *BBC News*, <http://news.bbc.co.uk/2/hi/science/nature/2950275.stm>; Pillinger, 'To Make It in Space You Need Tenacity and a Lot of Stamina,' *RedOrbit* (9 July 2004); http://www.redorbit.com/news/space/70892/to_make_it_in_space_you_need_tenacity_and_a; and archive of Beagle 2, <http://www.beagle2.com/weblog/archivecategory.htm>.

9. Pillinger, 'I'm Searching for Life on Mars,' *BBC News* (24 July 2002), http://news.bbc.co.uk/2/hi/uk_news/1829610.stm: 'The role of a modern scientist in my case is to be a professor of PR as well as professor of planetary sciences. And in the meantime I've become a pop entrepreneur; I do a bit of art with Damien. [...] We had to create a publicity machine to convince people that we had a project worth funding.'
10. Jon Wiederhorn, 'Blur to Play on Mars: Britpop Band Commissioned to Create Track for Beagle 2 Space Lander,' *MTV* (30 January 2002), <http://www.mtv.com/news/articles/1452037/01302002/blur.jhtml>; Karen Bliss, 'Blur Get Life on Mars: Musical Probe Set for Christmas Landing,' *Rolling Stone* (4 June 2003).
11. See William R. Macauley's contribution, Chapter 15 in this volume.
12. See Michael Schetsche, 'Rücksturz zur Erde? Zur Legitimierung und Legitimität der bemannten Raumfahrt,' in Christoph Heinrich and Markus Heinzelmann, eds, *Rückkehr ins All*, Ostfildern-Ruit: Hatje Cantz, 2005, 24–7, here 26 (exhibition catalogue, Kunsthalle, Hamburg, 23 September 2005 – 12 December 2006).
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19. Tim Radford, 'Hirst Launches Spots into Space,' *Guardian* (29 November 2002).
20. David Derbyshire, 'Hirst's Art is out of this World,' *Telegraph* (16 July 2003): 'Pillinger recalls that Hirst was keen to include a blue spot to represent Earth. The pair settled on azurite, a copper carbonate mineral. Another nod to the mother planet came with a blob of Green Earth – a mix of different oxidation states of iron as a hydrated silicate. It also contains potassium needed for age determination.' Kristine von Oehsen in Heinrich and Heinzelmann, *Rückkehr ins All*, 66: 'Wir hatten Gründe für verschiedene Vorgaben bezüglich der Beschaffenheit der Kalibrierungsplatte und gaben diese Erfordernisse an Damien weiter, aber das Design, das Layout und die Wahl der Farben aus der Palette blieben ihm überlassen.'
21. *BBC News* (29 November 2002), <http://news.bbc.co.uk/1/hi/entertainment/arts/2522417.stm>; 'Damien Hirst Spots on Mars,' 1 June 1999, Beagle 2, <http://www.beagle2.com/resources/resources2a.htm>.
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31. Hirst, *I Want to Spend the Rest of My Life*, 207, 246; Stuart Morgan, 'Damien Hirst: The Butterfly Effect,' in *ibid.*, 68–73, here 68; Burn, 'Is Mr Death In?', 12. See also Sotheby's, ed., *Damien Hirst's Pharmacy*, London: Sotheby's, 2004 (auction Sotheby's, London, 18 October 2004).
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34. Tim Radford, 'Hirst Launches Spots into Space,' *Guardian* (29 November 2003); Paul Gauguin, *Where Do We Come From? What Are We? Where Are We Going? (D'où venons-nous? Que sommes-nous? Où allons-nous?)*, 1897–98, oil on canvas, Boston Museum of Fine Arts, inv. 36.270.
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